

ABSTRACT

The invention relates to a process for making high-performance polyethylene multi-filament yarn comprising the steps of making a solution of ultra-high molar mass polyethylene in a solvent; spinning of the solution through a spinplate containing a plurality of spinholes into an air-gap to form fluid filaments, while applying a draw ratio DR_{fluid} ; cooling the fluid filaments to form solvent-containing gel filaments; removing at least partly the solvent from the filaments; and drawing the filaments in at least one step before, during and/or after said solvent removing, while applying a draw ratio DR_{solid} , wherein in a draw ratio $DR_{\text{fluid}} = DR_{\text{sp}} \times DR_{\text{ag}}$ of at least 50 is applied, wherein DR_{sp} is the draw ratio in the spinholes and DR_{ag} is the draw ratio in the air-gap, with DR_{sp} greater than 1 and DR_{ag} at least 1. The invention further relates to a spinplate having spinholes of specific geometry.